Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	5 JUNE 2025
Team ID	LTVIP2025TMID52391
Project Name	Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Authentication	Registration via Email Registration via Google Registration via LinkedIn
FR-2	Data Upload & Processing	CSV/Excel Upload PDF/Image Parsing (Apache Tika) API Data Fetching
FR-3	Market Trend Analysis	Price Trend Visualization Neighborhood Comparisons Affordability Metrics
FR-4	Reporting & Export	PDF Report Generation Data Export (CSV/JSON) Custom Dashboard Sharing
FR-5	Alert System	Price Drop Alerts New Listing Notifications Custom Threshold Alerts
FR-1	User Authentication	Registration via Email Registration via Google Registration via LinkedIn

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Intuitive UI (Tableau/D3.js) with <80% training satisfaction
NFR-2	Security	GDPR compliance, encrypted data storage (AES-256), OAuth 2.0 authentication
NFR-3	Reliability	99.5% uptime, automated backups, data validation checks
NFR-4	Performance	<2s load time for dashboards, supports 10K+ concurrent users
NFR-5	Availability	24/7 access with <30min monthly maintenance window
NFR-6	Scalability	Horizontal scaling to handle 1M+ property listings
NFR-7	Compliance	Adheres to FHFA (U.S.) and TRREB (Canada) housing data standards